

In re AKEMAKOU  
09/700,877

In re application of: AKEMAKOU

Serial No.: 09/700,877

Examiner: CUEVAS, P.

Filed: November 20, 2000

Group Art Unit: 2834

Title: ROTATING MACHINE COMPRISING MAGNETS WITH DIFFERENT  
COMPOSITIONS

**APPENDIX SHOWING AMENDMENTS**

**IN THE TITLE**

Please delete the Title and replace it with the following:

A Rotary Electrical Machine Having Magnet Arrangements With Magnets of Different  
Compositions

**IN THE DRAWINGS**

Attached hereto please find a letter to the draftsman with corrected drawing figures 1a-1d, 2a-2c and 3. These drawing figures have been corrected in red ink to include the legend "Prior Art" as required by MPEP 608.02(g). No new matter has been added.

**IN THE SPECIFICATION**

The Examiner has required a substitute specification showing changes required by the Official Action. Applicant has attached hereto a "marked-up" specification showing all changes with brackets and underlines and a "revised" specification with changes incorporated therein. No new matter has been entered because all changes are grammatical and formal in nature.

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IN THE CLAIMS

Please amend claims 1-8 as follows.

1. (Amended) A rotary electrical machine, [especially an alternator or an alternator-starter for a motor vehicle,] comprising a stator (S), a rotor (R), an airgap (E) between the stator (S) and the rotor (R), and permanent magnets incorporated in at least one of the rotor [and/or in] and the stator, wherein the magnets constitute at least [two groups each of which is defined by a specific type of composition, namely] a first group of magnets containing rare earths and a second group consisting of ferrite magnets, [characterised in that] wherein a plurality of sub-assemblies (720, 721-731, 730, 732-800, 810 ...) is provided, each sub-assembly combining at least one magnet of the first group with a magnet of the second group, at least one of the magnets being disposed radially so as to generate an orthoradial magnetic flux.

2. (Amended) An electrical machine according to Claim 1, [characterised in that] wherein a plurality of sub-assemblies of magnets (720-721, 730-732, 800-810) are provided inside the rotor, each sub-assembly combining at least one magnet of the first group with at least one magnet of the second group, at least one of the said magnets being oriented radially so as to generate an orthoradial magnetic flux.

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3. (Amended) An electrical machine according to Claim 2, [characterised in that] wherein each sub-assembly comprises a magnet containing rare earths (721, 810) situated close to the airgap (E), arranged in superimposed relationship in a generally radial direction with a ferrite magnet (720, 800).

4. (Amended) An electrical machine according to Claim 2, [characterised in that] wherein each sub-assembly comprises a magnet containing rare earths (730) [in superimposed relationship] interposed, in a radial direction, between [with] two ferrite magnets (731, 732) [by which it is encircled].

5. (Amended) An electrical machine according to Claim 3 or Claim 4, [characterised in that] wherein each sub-assembly comprises a magnet containing rare earths (910) situated close to the airgap (E) and in superimposed relationship in a generally radial direction with a ferrite magnet (900a, 900b) of the same thickness as the rare earth magnet, the said ferrite magnet including indexing means [, in particular] defined by at least one of a chamfered portion (9000a) [or] and a notch (9000b).

6. (Amended) An electrical machine according to [any one of Claims 1 to] Claim 5, [characterised in that] wherein the first group consisting of rare earth magnets is of smaller size than the second group consisting of ferrite magnets.

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7. (Amended) An electrical machine according to [any one of Claims 1 to] Claim 6,  
[characterised in that] wherein the sub-assemblies are mounted in the rotor (R).

8. (Amended) An electrical machine according to Claim 7, [characterised in that] wherein each  
sub-assembly consists of a magnet of the first group (721, 810 ...) situated close to the surface of  
the rotor (R) and arranged in superimposed relationship in a generally radial direction with a  
ferrite magnet (720, 800) situated close to the axis of rotation of the rotor.